THE

NATIONAL GEOGRAPHIC MAGAZINE

AN ILLUSTRATED MONTHLY

EDITOR

GILBERT H. GROSVENOR

ASSOCIATE EDITORS

MAJOR GENERAL A. W. GREELY
U. S. Army

ALEXANDER GRAHAM BELL
Washington, D. C.

C. HART MERRIAM
Chief of the Bureau of the Biological Survey
U. S. Department of Agriculture

DAVID T. DAY
U. S. Geological Survey

WILLIS L. MOORE
Chief of the Weather Bureau, U. S. Department of Agriculture

R. D. SALISBURY
University of Chicago

O. H. TITTMANN
Superintendent of the U. S. Coast and Geodetic Survey

G. K. GILBERT
U. S. Geological Survey

O. P. AUSTIN
Chief of the Bureau of Statistics, Department of Commerce and Labor

ALEXANDER McADIE
Professor of Meteorology, U. S. Weather Bureau
San Francisco

DAVID FAIRCHILD
Agricultural Explorer of the Department of Agriculture

ALMON GUNNISON
President St. Lawrence University

ROBERT HOLLISTER CHAPMAN
U. S. Geological Survey

VOL. XIX—YEAR 1908

THE NATIONAL GEOGRAPHIC SOCIETY

HUBBARD MEMORIAL HALL

WASHINGTON, D. C.

CONTENTS

	Page
In the Savage South Seas; by BEATRICE GRIMSHAW	1
Studies on the Rate of Evaporation at Reno, Nevada, and in the Salton Sink; by Prof. FRANK H. BIGELOW, U. S. Weather Bureau	20
Methods of Obtaining Salt in Costa Rica	28
Dr Bell's Man-Lifting Kite	35
More Changes of the Colorado River	52
Honors for Amundsen	55
Recession of the Glaciers of Glacier Bay, Alaska; by FREMONT MORSE, U. S. Coast and Geodetic Survey	76
The National Geographic Society	78
Policemen of the Air; an account of the Biological Survey of the Department of Agriculture; by HENRY W. SHAW	79
A Few Thoughts Concerning Eugenics; by ALEXANDER GRAHAM BELL	119
The Carnegie Institution	124
A Jumping Salmon	124
Children of the World	126
Ten Years in the Philippines	141
A Bear Hunt in Montana; by ARTHUR ALVORD STILES, Topographer, U. S. Geological Survey	149
A Journey Through the Eastern Portion of the Congo State; by Major P. H. G. POWELL-COTTON	155
In the Valley of the Niger	164
Marking the Alaskan Boundary	176
A Drowned Empire; by ROBERT H. CHAPMAN	190
Haiti: A Degenerating Island: the Story of its Past Grandeur and Present Decay; by Rear Admiral COLBY M. CHESTER, U. S. Navy	200
The Madura Temples; by J. S. CHANDLER	218
The Bear Hunt	222
Among Honest People: Straw sandals for sale by the roadside near Arita, Japan; by ELIZA R. SCIDMORE	223
The Native Oysters of the West Coast; by ROBERT E. C. STEARNS, Honorary Associate in Zoölogy, U. S. National Museum	224
Topographic Maps Issued by the Geological Survey in 1907	227
National Geographic Society	230
Along the Old Inca Highway; by HARRIET CHALMERS ADAMS	231
Home-Making by the Government; by C. J. BLANCHARD, Statistician, U. S. Reclamation Service	250
Medieval Tales of the Lop Basin in Central Asia; by ELLSWORTH HUNTINGTON	289
The Key to the Pacific; by Hon. GEORGE C. PERKINS	295
Hawaii for Homes; by H. P. WOOD	298
Why Nik-ko is Beautiful; by J. H. DE FORREST	300
Where East Meets West; by MARIAN C. COFFIN	309
An American Fable; by GIFFORD PINCHOT, Chief of the United States Forest Service	345
Persia: the Awakening East; by W. P. CRESSON	356
Conservation of Our Natural Resources	384
The Nome Gold Fields	384
Geographical Congress	385
New Topographic Maps	386

Page

One Season's Game Bag With the Camera; by Hon. GEORGE SHIRAS, 3RD 387
Peary's Polar Expedition 447
Magnetic Survey of the Pacific 447
The North American Indian 448
Books Received 452
The Magic Mountain; by J. N. PATTERSON 457
Notes on a Zoölogical collecting trip to Dutch New Guinea; by THOMAS BARBOUR 469
Among the Mahogany Forests of Cuba; by WALTER D. WILCOX 485
Notes and Scenes from Korea 498
Some Human Habitations; by COLLIER COBB 509
Is Our Noblest Volcano Awakening to New Life; by A. H. SYLVESTER 515
Further Notes on Dutch New Guinea; by THOMAS BARBOUR 527
The Pacific: the Most Explored and the Least Known Region of the Globe; by LEOPOLD BLACKMAN 546
Biskra, the Ziban Queen; by Mrs. GEORGE C. BOSSON, JR 563
Location of the Sir John Franklin Monument 596
Some Wonderful Sights of the Andean Highlands; by HARRIET CHALMERS ADAMS 597
As Seen from a Dutch Window; by JAMES HOWARD GORE, Professor of Mathematics, George Washington University 619
Peasant Life in the Black Forest; by KARL FREDERICK GEISER 635
How the World is Shod 649
Ten Years of the Peary Arctic Club; by HERBERT L. BRIDGMAN 661
Cuzco, America's Ancient Mecca; by HARRIET CHALMERS ADAMS 669
Cork 693
Across Widest Africa; by A. HENRY SAVAGE LANDOR 694
Conservation League of America; by HENRY GANNETT, Geographer of U. S. Census 737
Comparison of Our Unprotected with Our Protected Forests 739
The Ruined Cities of Asia Minor; by ERNEST L. HARRIS, American Consul General to Smyrna 741
Bulgaria, the Peasant State 760
Servia and Montenegro 774
Notes on Macedonia 790
The Oil Treasure of Mexico; by RUSSELL HASTINGS MILLWARD 803
National Geographic Society 805
In Quaint, Curious Croatia; by FELIX J. KOCH 809
Some Ruined Cities of Asia Minor; by Consul General ERNEST L. HARRIS 833
Our Neglected Southern Coast; by ALFRED GOLDSBOROUGH MAYER 859
Scenes from the land where everybody dresses in white 871
Daniel Coit Gilman 883
Whalebone 883
An American South Polar Expedition 885
National Geographic Society 888

ILLUSTRATIONS

	Page
The village plate—Fiji	3
A root of Yanggona from which the intoxicating drink of the Fiji Islanders is made	3
Vanilla plant and bean	4
Drying vanilla—Fiji	4
A Fijian in festival dress	5
A Fijian in Sunday dress—Fiji	5
Infant head-binding to make the head conical—New Hebrides	6
Malekula warrior—New Hebrides	8
The women's dance	9
Dancing and singing	9
Bringing out the mummy from the "Hamal"	10
Typical idols in a New Hebrides village	11
A notorious cannibal—New Hebrides	12
Poisoned arrows	12
In the yam fields—New Hebrides	13
Shooting fish—New Hebrides	14
Tannese scar-tattooing—New Hebrides	15
Looking out for trouble	16
The allies coming in	16
Bushmen coming to see a white child	19
Fashions in Erromanga—New Hebrides	19
The Salton Sea and the Salt Creek trestle	21
Reno reservoir, tower No. 2	22
The five towers used in the evaporation experiments, Reno reservoir	25
Scenes near Reno, and the experimental towers	27
Obtaining salt at Caldera, Costa Rica	29
Provided with wooden spades, the peones gather the salted earth into long, narrow heaps	30
The heaps thus made and the low water at the distance	30
Collecting the salted earth	31
Filtering out the salt	32
Vaporizing the salt solution	33
Weathering the salt	34
Practice drill with a small kite	35
Views of the aerodrome shed in which the giant man-lifting kite, the Cygnet, is housed	36
View of the aerodrome shed	37
The Cygnet placed on board the raft	37
Members of the Aerial Experiment Association	38
Front view of the Cygnet, showing the manhole in the center	39
Another view of the giant "Cygnet"	40
Towing the giant kite, preparatory to sending it aloft	41
Views of the kite in the air	42
Another view of the kite aloft	43
Views of Cygnet in air	44
After the descent—floating on the water, waiting to be picked up	45
Picking up the Cygnet	46
The Cygnet safely lifted on to its raft	46
End view of the Cygnet	47
The manhole	47

Page

Another view of the Cygnet showing the manhole 48
Front view of the raft and kite 49
Towing the kite, with Lieutenant Selfridge aboard 50
All ready for the ascent 51
Just before the ascent 52
Kite with man aboard, flying at a height of 168 feet 52
Changes in the estuary of the Colorado river 54
Captain Roald Amundsen 56
Cooking vessel of the Eskimo 59
Eskimo toys 59
Eskimo means of making fire 60
Eskimo encampment 61
Eskimo cooking pot 66
Monument in memory of Sir John Franklin 67
Eskimo 67
The head of an Eskimo fishing spear 69
Eskimo hunter 70
Eskimo 71
Coal floating down the Ohio river 73
Glaciers 77
Four common seed-eating birds 80
Sparrow hawk 81
A useful bird of prey 82
Cactus wren 83
Golden eagle 84
A barred owl 85
A monument to the industry of barn owls 86
Pellets thrown up by owls 87
Three-toed woodpecker 88
Clark crow 89
Sage hen 90
Ring-tailed civet cat 92
Texas wild cat 93
Not dead, but playing possum 94
Common skunk wading through slush 95
Gray fox 96
Coyote pups 97
Typical breeding grounds of coyotes 97
A mute witness to the destructiveness of Michigan wolves 98
Apple tree killed by rabbits 99
Apple tree killed by field mice 99
Prairie dogs at mouth of burrow 100
Very young cottontail rabbits in nest 101
Field mouse 102
Sections of morning glory roots stored by field mouse 103
Shelter house on fox farm in Maine 104
Aspen being felled by beaver—note size of chips 105
Beaver dam from below—note storage pond above dam 105
Hudson bay sable 106
Orange groves of southern California 107
Elk in deep snow 109
Buffalo in Yellowstone Park 110
Twin black bear cubs 111

Page

Royal terns breeding on Battledore Island ... 112
A brown pelican colony, Pelican Island reservation ... 113
California murres on three arch rocks, off the Oregon coast ... 114
Cormorants nesting on three arch rocks bird reservation, coast of Oregon ... 115
Young Cormorants, Devil's Lake, North Dakota ... 116
Salmon caught in the act of trying to leap up the falls of the Shinn ... 125
Fun for the boys and girls in their favorite schoolground, Ostre Anlaeg, Copenhagen, Denmark ... 126
Boys and girls of Ave Maria Charity School, Granada, Spain ... 127
Infant coolies in China ... 128
Pupils of a missionary school in China ... 129
Little Japanese school-boys engaged in a lively tug of war ... 130
Girls under the trees—Tokio, Japan ... 131
A group of Burmese children ... 132
India of tomorrow ... 133
A group of school-girls in Kapiolani Park, Honolulu, Hawaii ... 134
School in Ceylon, showing pupils, teacher, and school-house ... 135
Javanese at Garoet—Javanese women and children ... 136
West Indian pickaninnies, scholars, and teacher before a school-house in Jamaica ... 137
United States school on Indian reservation at the second Mesa of the Moki country ... 138
Meeting at mission school at Nibunza Bobuna Village, Congo ... 139
Boys studying on the housetop at Assiout, Egypt ... 140
Characteristic scene in Northwestern Montana ... 150
Typical views in Northwestern Montana ... 152
Pack-train crossing the range ... 153
View from Kootenai Mountain, looking south ... 153
Major Powell-Cotton with two of his pygmy trackers ... 157
A group of pygmies ... 158
A forest giant, with tent between two embedded roots ... 159
Floating village of Katanga, as seen from the shore ... 160
Three huts of the floating village, Katanga ... 161
Wall of burnt clay surrounding a village near Timbuktu, Africa ... 162
Natives near Timbuktu, in the valley of th Niger ... 162
A young girl, near Timbuktu ... 163
A native hut showing burnt clay wall—scenes in French territory in the valley of the Niger ... 163
Granary in the valley of the Niger ... 164
Making cassava bread—Saint Vincent, West Indies ... 165
Making tortillas—Salvador, Central America ... 166
Tortilla market—Guadalupe, Mexico ... 167
A bread "Wallah"—Jeypore, India ... 168
A bakery in Japan ... 169
Two women grinding at the mill—Palestine ... 170
Baking bread in Syria ... 171
Bread of the Orient, Egypt, and Turkey ... 172
An old-fashioned bakery still used in sections of Canada and the United States ... 173
Making the "flat bread" of the Norwegian peasant ... 174
Making the "flat bread" of the Norwegian peasant ... 175
The laboratory of an American bakery, where all the ingredients are carefully tested ... 176
The dough room of an American bakery, where the fermentation of the dough is developed ... 177
Moulding the loaves of bread in an American bakery ... 178
Cooling room of an American bakery, where thousands of loaves are cooled by pure air ... 179
Kate's Needle, Alaska ... 180

Page
The Brady Glacier ... 181
Marking the Alaskan boundary ... 182
The surface of the "Hugh Miller" glacier ... 183
Triangulation party returning from a trip to a station near the Muir glacier ... 183
View up Queen inlet toward the boundary line—the "Carroll" glacier shows in the background ... 184
A view showing how a surveyor should be shod who has much traveling to do on ice ... 185
An observing party climbing a very steep slope to a triangulation station ... 185
Silk sleeping tent, weight about 8 pounds, 9 x 10, showing cots and sleeping bags ... 186
An observing party returning to camp from a triangulation station on a snow field which is a little soft from the action of the sun ... 187
"Camp diversion" ... 187
Sunset views in July ... 188
Taking a swim in a pool on the mountain top ... 189
Scene in Dismal Swamp—southern margin, near Elizabeth City, N. C. ... 191
A well-constructed drainage ditch—side slope prevents caving and erosion ... 192
A poorly constructed drainage ditch—sides caved and eroded ... 193
Road-making across newly reclaimed tract of swamp land in Sacramento valley ... 194
Type of conveyor dredge used in channel-deepening ... 195
Reclaimed Shiocton swamp, Wisconsin—a crop said to be 20 tons per acre ... 196
Difficulties encountered in survey of Sacramento valley (U. S. Geological Survey party) ... 197
Minnesota swamp survey (U. S. Geological Survey party en route) ... 198
Hand-ditching by contract labor, Holbeck's swamp, near Charleston, S. C. ... 198
Topographer at work in Tule swamp of Sacramento valley, California ... 199
Cathedral and Union Club, Cape Haitien ... 207
Citizens of Cape Haitien ... 208
Boys of Santo Domingo ... 213
Sketch map of Haiti ... 215
Colonnade of Golden Lily tank, with paintings of Siva's sports ... 219
Porch of a thousand pillars—Madura ... 220
Golden Lily tank—Madura ... 221
Teppakulam or raft tank—Madura ... 222
Among honest people ... 223
School children in a Swiss town ... 228
Crossing a Swiss lake ... 229
"Padaung" woman and child—South Shan States, Burma ... 230
Our equipage on the road to Cuzco—Mrs. Adams and the Cholo driver ... 232
Foot-bridge of woven willow over River Vilcanota, on the road to Cuzco ... 233
Foot-travelers ... 234
Inca burial tomb and Andean hut of mud and thatch ... 234
Quichua farmers ... 235
Plowing at an elevation of 11,000 feet ... 235
What the Quichua farmer lacks in modern machinery he makes up in the decorative headdress of his oxen ... 236
Harvesting on the roof of the world ... 237
Gathering fuel for the home ... 238
Rear guard of a llama train ... 239
Beggars ... 239
Quichua girls returning from mass ... 240
A full-blooded Quichua ... 241
The patient beasts of burden of the Andean highland ... 242
Resting at a wayside hut ... 243
"As in the days of Ataiiualpa" ... 244

Page

The decorated leader of the llama train ... 245
"With heads bowed and uncovered they stood, as in the long ago, greeting their beloved Cuzco, sacred city of the sun ... 246
A herd of llamas off duty. The pyramid is a mirage ... 247
Farming in the world's roof garden ... 248
Ruins of the Temple of Viracocha ... 249
Pumping barge of the U. S. Reclamation Service—Williston project, North Dakota ... 251
Cattle knee deep in alfalfa—Garden City project, Kansas ... 254
Blanchard Falls—Minidoka project ... 255
In Gunnison canyon—Uncompahgre project, Colorado ... 256
Raising hogs in the Klamath valley—Klamath project, Oregon ... 259
View showing cultivated land in the lower valley of the Yakima river, Washington ... 260
Pear tree in orchard of J. H. Forman and picture of owner—near Parker, Washington, under Sunnyside canal ... 261
Yakima maiden picking hops—Yakima project, Washington ... 262
One acre of Concord grapes in orchard of William Squire, near Zillah, Washington ... 266
Remains of a vanished race ... 269
The capitol grounds from the southwest corner of the capitol building, Phoenix, Arizona ... 270
Baled hay storage building at the Chandler ranch, 6 miles south of Mesa, Arizona ... 271
Cholla cactus on the desert between government wells and desert wells, Roosevelt road—Salt river project ... 273
Building homes on the desert in anticipation of the opening of the government works—Salt River project ... 274
Pure-blooded Apache laborers constructing a road through the desert—Salt River project, Arizona ... 275
The top of Fish Creek Hill, Arizona ... 276
Raising melons in the Salt River valley, Arizona ... 280
The raising of grapes in the Salt River valley, near Mesa, Arizona ... 281
Almond orchard in bloom in the Salt River valley, Arizona ... 282
Date tree in Salt River valley, near Mesa, showing the enormous crop of dates on one Salt River project ... 273
The Ivy Ranch, near Phoenix, Arizona—Salt River project, Arizona ... 284
Watermelons in young peach orchard farm, Kerman, California ... 287
The sea of sand of the Takla Makan desert ... 288
The sea of salt of the Lop desert ... 288
A Loplik house of reeds ... 291
Loplik women and children ... 291
Æolian erosion in the Lop basin ... 292
Chantos of the oasis of Khotan gathered for the weekly summer fete in honor of the life-giving river ... 293
The oasis of Khotan ... 294
The Crossroads of the Pacific ... 296
The Monseki of Rinno Temple, Abbot Hikosaka ... 301
The Wind God in Iemitsu's mausoleum ... 302
Near Ieyasu's mausoleum ... 303
The volcano Asama ... 304
Kusatsu Hot Springs, between the volcanoes Asama and Shirane ... 305
Kusatsu Hot Springs, No. 1. Inside the bath-house for men ... 306
Kusatsu, No. 2 ... 307
Kusatsu, No. 3 ... 308
Falls of the Kerka—Dalmatia ... 310
Ragusa, Queen of Dalmatian cities ... 311
Peasant carding—Dalmatia ... 314

Page
Women near Spalato—Dalmatia ... 315
Two beaux in "The Bocche" ... 316
At Zara—Dalmatia ... 317
A wayside fountain—interior Dalmatia ... 318
Bocche di Cattaro from the mountain road to the capital of Montenegro ... 321
Saint Savina, a Greek orthodox monastery in the "Bocche" ... 322
A Montenegrin dandy ... 323
A Montenegrin official ... 324
A Montenegrin bride ... 325
Main street, Cettinje, Montenegro ... 326
Canoe on the Lake of Scodra ... 329
Albanian tribesmen in Scodra bazar ... 330
Country woman—Herzegovina ... 333
Herzegovina peasants traveling fourth class ... 334
Sarajevo pack ponies en route to market ... 335
Herzegovinian women in the streets of Saint Savina ... 336
Moslem women, Mostar Herzegovina ... 337
Herzgovinians and Bosnians at a fiesta ... 339
Bosnian houses—Jesero ... 340
Jesero, Bosnia ... 341
Jayce, Bosnia—a Greek orthodox beauty ... 342
Jayce, Bosnia—Turkish fountain ... 343
Sheep and Goats—Jayce ... 344
Five hounds of Mr. John B. Goff's pack ... 352
Wolverine climbing a tree to escape pursuing dogs ... 353
Bear climbing a tree to escape pursuing dogs ... 354
The Fish Hawk Creek bear ... 355
His Imperial Majesty Mohammed Ali, Shah of Persia, wearing the Kajar ... 358
His Imperial Highness, the Crown Prince of Persia ... 359
The Anderoom palace ... 359
Armenian girls of the province of Urumiah, where the Persian disturbances were greatest. 362
The High Priest Sayed Abdollah Moshtehid of Teheran ... 363
An ancient Persian village near the Turkish frontier ... 364
A Persian drug shop and well—Teheran ... 367
Persian bakery to the left and grocer's shop to the right—Teheran ... 368
A wagon load of bread—Teheran ... 369
A Persian merchant of second-hand clothing—Teheran ... 370
"Kejavehs," the uncomfortable chairs in which women and children travel in Persia ... 371
A caravansary or "hotel" on the road to Shiraz, Persia ... 372
Crowd of Persian revolutionists ... 374
Crowds of refugees at the British legation during the agitation for a constitution ... 375
Mohammedan high priests, leaders of the constitutional revolt in Teheran ... 376
Funeral of a Persian high priest—Teheran ... 377
Copper vessels used for the cooking of food for the constitutional refugees at the British legation ... 378
A mountaineer of South Persia, near Bushire, on the Persian gulf ... 380
An aristocratic young Persian lady ... 381
Ferry-boats at Bagdad, on the Tigris ... 382
Another view of the boats used at Bagdad ... 383
Outline map of Persia ... 384
"Merry Widow" hats six feet in circumference ... 386
Wreckers eyeing the Physalia with interest ... 391
The Physalia on a reef ... 391

Page

Curly tailed lizard, Cay Verde ... 392
Resting after the hurricane on Upper Gold Ring; an abandoned negro hut ... 392
General view of booby and man-o'-war colonies ... 393
Boobies on coral reef, 75 feet above the sea, one of the highest coral cliffs in the Bahamas ... 394
Western part of the booby colony, on the elevated portion of the island ... 395
Parent boobies covering young from direct sun heat of 130 degrees ... 396
Nesting booby, with young displaced in foreground ... 396
Only young twin boobies noticed in 700 nests ... 397
The parent boobies stand guard night and day except when searching for food ... 397
Boobies in flight—note fan-tails ... 398
Young booby in final gray plumage just before changing to adult ... 398
Man-o'-war birds soaring 100 yards overhead on motionless wings ... 399
Breeding colony of man-o'-war birds ... 400
Young man-o'-war bird at close range ... 401
Male and female man-o'-war birds flying over sea grape thicket—note wing action and forked tails ... 403
Five nests of man-o'-war birds in a radius of six feet—this bird has but one young ... 403
Man-o'-war bird descending on nest—note remarkable forward wing movement ... 404
Female man-o'-war bird, showing extreme extent of its wing, 8 feet from tip to tip ... 405
A contrast: Old bedraggled cow moose, indifferent to approaching canoe; magnificent bull moose in action—Nictau lake ... 408
Large cow moose detecting scent from camera blind—Red Brook creek, New Brunswick ... 409
Bull moose struggling ashore ... 409
Bull moose taken in July, 1907, and again by flashlight three nights later ... 410
An early foggy morning on Nictau lake, 6 a. m.; cow moose feeding ... 411
Buck white-tail deer at New Brunswick trout stream ... 411
Daylight—bull moose swimming so rapidly that it required three paddles to overtake him (4 p. m.) ... 412
Flashlight—cow and calf moose—Upper Tobique river, New Brunswick ... 413
Daylight—cow moose photographed at eight feet from blind ... 414
Flashlight—large bull moose—Upper Tobique river, New Brunswick ... 417
Third picture of the big bull moose that was photographed four times in twenty minutes ... 418
Pair of young white-tail deer—Tobique river, New Brunswick, July 8, 1907 ... 419
Flashlight—young bull moose gazing with interest at approaching jack light—Nictau lake, New Brunswick, July 2, 1907 ... 420
Flashlight—boat rigged for night hunting with cameras, showing flashlight apparatus and jack lamp; taken 1893 ... 421
A 75-pound timber wolf trapped on a deer runway near author's camp, Lake Superior, July 29, 1907 ... 423
Five hundred forest mushrooms at the base of a hard maple, Lake Superior ... 423
A sapsucker making fresh sap basins in bark, where it also catches flies attracted by the sweet fluid; July 26, 1907 ... 424
Another view, showing regularity of sap basins covering six weeks' use ... 424
Mink taking its own picture by flashlight by pulling on a string baited with fish—White Fish river, Michigan; July, 1907 ... 425
Flashlight—white-tail deer, with porcupine to right—July 28, 1907; White Fish lake, Michigan ... 426
Two extremes—a Florida owl and a Canada jay or whiskey jack ... 427
Deerlake, Sandy River district, Newfoundland ... 428
Testing camera with thread set across caribou trail ... 429
Doe and fawn that took their own pictures several hours later—Newfoundland, October 20, 1907 ... 429
Daylight—weasel, Newfoundland; its nimbleness makes it hard to photograph ... 430

Page

Caribou stag, doe, and fawn; one-half of the does carry small horns; the fawn is assisted by the suction in swimming 430
Caribou in agonized rush to escape canoe 431
Caribou swim slowly, but go ashore with great speed 431
Caribou in herds swim compactly; suction helps those in rear 432
Very large caribou stag, taken in rough water and on a dark day 433
Caribou stag with symmetrical horns photographed at eight feet; note beautiful white collar carried by stags only 433
Rising flight of pelicans—(*a*) wings seen at different angles; (*b*) where it resembles the Canada goose 435
Side flight of pelicans 436
Approaching flight of pelicans 437
A group of fine old pelicans, with a few young in foreground, all facing one way 438
About 1,000 young pelicans bathing and playing at water's edge 438
Groups of young pelicans sleeping and preening themselves 439
Young pelican in "gooseflesh" phase 440
Pelicans in shadow of approaching thunderstorm 441
Pelicans coming from the ocean to Indian river with fish for young 442
Male and female quail in orange grove—Halifax river, Florida; April 1, 1908 443
Catbird eating orange—Halifax river, Florida; April 1, 1908 444
Brown thrasher approaching orange 444
Wild gray squirrels eating oranges—Halifax river, Florida; April 1, 1908 445
The Apache 449
Chief Garfield—Jicarilla—Apache 450
Jicarilla—Apache maiden 451
Nesjaja Hatali—Navaho 453
Luzi—Papago 454
Sunset from Mt. Wilson 459
Sea of fog from Mt. Wilson 460
Sea of fog from Mt. Wilson 461
A storm in the mountains 462
Entitled Snow Yucca 463
Cottages—Mt. Wilson in winter 464
Mt. Wilson hotel and cottages in winter 465
San Antonio or "Old Baldy" in winter from Mt. Wilson 466
Night view from Mt. Wilson 467
Papuans among the little colony of traders 470
Papuan women 472
Papuans near the mission at Dorey 475
A Papuan of Dorey 476
One of our best Papuan helpers at Dorey 477
Men of Dorey 478
End view of a communal "Long House" near Dorey 479
Papuan children 480
Papuan canoes 481
Jobi Island women 482
A Wiak Island canoe 483
Hauling mahogany logs from the forest—Cochinos bay, Cuba 487
One of the surly men of Meosboendi, Wiak Isalnd 484
A field of corn in a clearing 488
Semi-piratical sea captain of a trading schooner on the south coast of Cuba 489
Old man and a typical native house—Cochinos bay, Cuba 490
The day after the cyclone of October 17, 1906—Cochinos bay, Cuba 493

Page

A sunset on Cochinos bay, Cuba 495
Map of Bay of Cochinos 497
A missionary's water-carrier in Pyengyang, Korea 498
Most of the carrying in Korea is done by men 499
A wayside shrine just inside the Seven Star gate, Pyengyang, Korea 500
A Korean bride in chair 500
Buddhist fish inside monastery at Hyang San, North Korea 501
A wishing stone 501
A Korean lady of the court 502
Korean father and two children 503
Stone carving symbolizing long life—Seoul, Korea 504
Boys of heathen school, Korea 505
Devil house near the entrance to Yeng Byen, Korea 506
Interior of devil house 507
Part of the gallery of names on top of Yak San (mountain), Yeng Byen, Korea 508
Fisherman's kitchen—Shackelford Island, North Carolina 510
Fisherman's camp—Shackelford bank, North Carolina 511
Seminole Indian home near Miami, Florida 512
Harvest homes at Gabii 513
Goat herder's house in Texas 514
Mt. Hood from Sandy river bluffs, looking east up Sandy river 516
Relief map of Mt. Hood 518
Climbing Zigzag glacier—guide in front cutting steps 522
At work on the top 522
Eliot glacier, at northeast side of Mt. Hood 523
Another view of Eliot glacier 524
Eskimo beauties from Godthaab, Greenland 526
An early morning view of the village of Kajo, in Humboldt bay 528
The "Karriwarri" or sacred house at Djamna 530
A man of Djamna standing by the bow of his canoe 531
Men of Djamna Island 532
The sacred structures of Tobadi, Humboldt Bay 533
The great "Karriwarri" at the village of Tobadi, in Humboldt Bay 534
Scene in Humboldt Bay 535
Men of Tobadi Village 536
Trading with the natives: Humboldt Bay 537
Papuans ferrying the writer from Tobadi Village to Metu Debi Island, in Humboldt Bay. 538
Women going calling along a village street of Tobadi 538
A village street in Tobadi, Humboldt Bay 539
Papuan guides 540
An archer at Humboldt Bay, using a fish arrow 541
The very rare Proechidna, or egg-laying ant-eater 542
A Papuan tree kangaroo climbing: found only in forests of New Guinea 543
A cassowary at Sorong, New Guinea 544
Leaving New Guinea 545
Sketch map of the Pacific Islands 547
Native assembly house: Bora, Society Islands 548
Mabu, a village in the Fiji Islands 550
On Kambara Island, Fiji 552
Native fighting man: Moen Island, Caroline Islands 553
Old king of Mual district and two of his wives, Caroline Islands 556
Men of Ponapi Island, Caroline Islands 557
Daughters of Chief Nakiroro, Gilbert group 558

Page

Native women and children: Tongufali village, Ellis group ... 559
House of Johnnie Toga, Vavu Island, Tonga group ... 560
Native princess "Mele"—Niue Island, Tonga group ... 561
Native child, Low Archipelago ... 562
Sketch map of Algeria ... 564
Zouaves at Setif ... 565
Ships of the desert ... 566
On the road to Biskra ... 567
Looking across the desert on the route to Biskra ... 578
A canyon in the outskirts of Biskra ... 571
In the palm gardens: Biskra ... 572
Gossiping on a street corner: Biskra ... 573
The horseless plough ... 574
The roads about Biskra have a biblical atmosphere ... 575
Outside a café: Biskra ... 576
A rest before the desert journey ... 576
A typical barber shop: the open street ... 577
Street scene in Biskra ... 578
An Ouled-Nail: Biskra ... 578
A seller of bread ... 579
An Ouled-Nail ... 579
A happy family: Biskra ... 580
Dancing girls: Biskra ... 580
A war lord of the desert ... 581
Rapid transit is not essential in Biskra ... 581
A street crowd: Biskra ... 582
The market place: Biskra ... 583
Playing marbles: Biskra ... 584
A teacher administering discipline to a pupil by rapping his hands: Biskra ... 585
Gathering the dates ... 586
A rivulet of muddy water which flows through the main street of Sidi-okba ... 588
Bedouin encampments passed on the road from Biskra to Sidi-Okba ... 591
The fourth posture of the devout Mussulman at prayer ... 592
He bows to the ground three times ... 593
The fruit that looks like a watermelon is in reality a lemon ... 594
Qahatika water girl ... 595
Liliental's gliding machine ... 596
A dorway carved out of a single block of stone in the pre-Incasic temple at Tiahuanaco, Peru ... 598
In the ruins of the oldest city in the new world, Tiahuanaco ... 599
Ruins of the temple, Tiahuanaco ... 600
Women of the Tiahuanaco ... 600
Women of the Tiahuanaco of today ... 601
The village band, Tiahuanaco ... 602
Gaudy hats worn by the men of Tiahuanaco at fiestas ... 603
Sailing on the lake of the clouds ... 605
Sketch map showing location of Lake Titicaca and Andean Highlands ... 606
Constructing a balsa of reeds on an islet of Lake Titicaca ... 606
Ferrying mules in the reed boats ... 607
Embarking an a balsa ... 608
View of a part of the deck of a balsa ... 608
Ferry-boats waiting for a fare, Lake Titicaca ... 609
On the trail to the valley of Yucay, bordered by Spanish broom ... 611

Page

The valley of Yucay ... 612
Ruins of the fortress of Ollentayrambo, in the valley of Yucay ... 614
Ruins of the fortress of Pisac. Astronomical stone, Pisac. In the valley of Yucay ... 615
Types seen in the valley of Yucay, Peru ... 616
A flock of alpacas, seen in the valley of Yucay ... 617
Quaint costumes of village girls on the wharf beside the fishing boats, Zuyder Zee ... 623
Neighbors, big and little, in a tidy street of a Dutch town ... 626
Picturesque and thrifty Dutch country women with milk pails balanced on wooden yokes ... 631
A hamlet in the Black Forest ... 636
A typical Black Forest vale in June ... 637
A main forest road and road mender ... 639
A wayside hut in the forest for the protection of forest workmen and travelers ... 640
A nursery in the Black Forest ... 641
A typical Black Forest home ... 642
The village smith's wife, with five of her fourteen children ... 643
A corner in the living room. The curtains enclose the bed ... 644
Women on their way to work in the forest ... 645
On the road to the hay field ... 645
The main street of Baiersbronn, in the Black Forest ... 647
The celebration at Mitteltal ... 648
High leather boots worn in Russia ... 650
An out-door shoe factory in France ... 651
A Medieval style of shoe still in use ... 652
Red leather shoes with huge pompons, emphasizing the up-turned toes worn by the Queen's guards in Athens ... 653
A street of shoe stores in Athens ... 654
A Chinese shoe stall in a city market ... 655
Tiny shoes of fine kid and silk embroidery worn by Chinese ladies of the upper classes in Canton ... 656
Probably the oddest shoes in the world ... 657
Bargain sale of Japanese clogs and sandals at a shop in Tokyo ... 658
Departments of one of the largest high-grade shoe manufactories in the United States ... 659
Footgear of ancient cliff-dwellers, found in Arizona ... 660
Commander Peary's ship, the "Roosevelt" ... 662
The President bidding "God Speed" to the intrepid crew of the "Roosevelt" ... 665
Commander Peary and Herbert L. Bridgman, saying farewell aboard the "Roosevelt" ... 667
Statue of Manco Capac, the emperor who founded Cuzco ... 670
Remains of the palace of the first Inca Manco Capac ... 671
A mountain trail overlooking the valley of Cuzco ... 672
A Cuzco street scene, showing old Spanish balcony: Note llamas rolling in the dust ... 673
Near Cuzco ... 674
Familiar faces in Cuzco ... 675
A fountain in Cuzco ... 676
The Plaza, Cuzco, showing a procession from the Cathedral ... 677
The original virgin of Cuzco ... 678
A stationary shrine in a Cuzco street ... 679
A religious procession in Cuzco ... 680
Twelve-sided stone in Cuzco ... 681
A street of Cuzco ... 682
A view of the fortress of Sacsahuaman ... 683
A view of one of the salients of the fortress of Sacsahuaman ... 684
Seats of the Incas overlooking Sacsahuaman, Cuzco, carved out of solid rock ... 685
Gathering fuel ... 686

Page

Guichuas: last of the Incas 687
A poncho weaver of Cuzco 688
Cork oaks partially stripped of the valuable bark: Almorima, Spain 690
Boiling the green bark—lifting a batch from the vat: the cord industry at Almoraima, Spain 691
The stock-yard at Almoraima, Spain, where piles of bark await curing and bailing 692
Adem, the author's faithful Somali 695
Guests on their way to Emperor Menelik's lunch party for 7,980 people 697
Galla woman; Abyssinia 699
A typical high official of Abyssinia 700
Woman's market in the Yambo country 701
Stampeding Nuer women 703
The long-legged people—Nuer men and women 704
Author's three pet ostriches, and leper camp-follower 705
Sometimes a small fish is caught on the Nile; sometimes not so small 707
Ivory on the river Chinko 708
Yacoma crew in author's canoe on the river Mbomu 709
Tongu with hair ornamentations of beads, Congo Free State 710
The Sultan of Bongasso and his wives 711
Rubber being brought in a Société des Sultanats (Bongasso), French Congo 712
The best dancer on the Ubangi: Banzyville, Congo Free State 713
Cannibals with wonderful bead decorations on the hair: Congo Free State 714
The longest canoe (71½ feet) on the Ubangi 715
Bananas being conveyed by native children into the Congo Free State post of Banzyville 716
Women dancing in the Congo Free State 717
Cannibal dancers in Congo Free State 718
Fisher women on the Ubangi, Congo Free State 719
Picturesque cannibals: Sango tribe 720
A beauty competition 721
Mandja women, showing their method of carrying the baby 722
Women with elongated lips: Shari river 723
Women with elongated lips (profile) 724
Women on the Shari river, showing extension of lips at various ages 725
Woman of the Lower Shari: two wooden disks were inserted in the lips 726
Tuaregs with their typical face screens 727
Great mud barns for storing grain on the Upper Niger 728
Headdress of Fulbeh women on the Niger 729
Caravan entering Timbuctu 730
A Moor of Timbuctu 731
A woman of Timbuctu 732
Timbuctu children 733
A girl 733
A street in Djenne 734
Djenne: Timbuctu's sister city 735
The olive orchard beneath which the city of Tralles lies buried 743
A limekiln among the ruins of Tralles 744
A typical plowman of Asia Minor 747
A view inside the theatre, Hierapolis 748
The cascades at Hierapolis 750
Another view of the cascades 751
The baths at Hierapolis 753
Hierapolis: the mineral springs 754
City of the dead 756

Page

Wandering shepherds of Asia Minor ... 757
Waiting for a train: Asia Minor ... 759
Bulgarian Infantry ... 761
Counting animals for military service: Bulgaria ... 762
Scene in the market place of Sofia, the capital of Bulgaria ... 763
A Bulgarian peasant ... 764
Priest and peasant: Bulgaria ... 765
Bulgarian soldiers ... 766
A corner of the monastery at Rilo ... 767
In the courtyard of the Rilo Monastery ... 767
On the road near Plevna, Bulgaria ... 768
Scene in a Bulgarian village ... 768
Scene in Sofia ... 769
A Bulgarian funeral ... 770
Dancing the Kolo, the Bulgarian dance ... 771
A Bulgarian belle in her garden ... 772
Servian girls ... 774
Servian peasants ... 775
A gipsy in Servia ... 775
The metropolitan on coronation day: Belgrade, Servia ... 776
A prince of Montenegro ... 777
A Servian ... 778
Montenegrin soldiers ... 778
Tower of Skulls, Servia ... 779
Well-to-do citizens of Belgrade, the capital of Servia ... 780
Herders at Cettinge, the capital of Montenegro ... 780
Montenegrins at Cettinge ... 781
Servian women at Belgrade ... 782
Turkish women at Herzegovina ... 782
Street scene in southern Herzegovina ... 783
Searching employees at a government tobacco factory, Sarajevo, Bosnia ... 784
Water "flasks" for sale at Mostar, Herzegovina ... 785
Veiled women out walking: Mostar, Bosnia ... 786
A Roman bridge at Mostar, Herzegovina ... 787
A corner in a Moslem cemetery: Bosnia ... 787
Merrymakers in Bosnia ... 788
Turks in Bosnia ... 788
A citizen of Bosnia ... 789
A Trappist monk: Bosnia ... 789
A Greek of Saloniki, European Turkey ... 790
Selling pomegranates, Saloniki ... 791
A water-seller: Saloniki ... 791
An old tower of Saloniki ... 792
A street scene in Adrianople, European Turkey ... 792
Christian women of Saloniki ... 793
Village scene in Macedonia ... 793
Greek Orthodox priests of Monastir, Macedonia ... 794
The Turkish butcher: Saloniki ... 795
The Macedonian ... 796
Albanian recruits for the Sultan's bodyguard ... 797
Mohammedan women of European Turkey ... 798
Map of southeastern Europe ... 799
Making Turkish coffee ... 800
A typical Turk ... 801

Page
Asiatic soldiers of the Turkish Army in Macedonia 802
Mammoth oil gusher on fire at San Geronimo, Mexico 804
A single chrysanthemum plant with 96 blossoms: Japan 806
Figures of men with chrysanthemum plants trained to grow as clothing for their persons .. 807
Bound for the market: Agram, Croatia 810
A stall in the market of Agram, Croatia 810
Scenes in the market of Agram, Croatia 810
Peasants at Agram, Croatia 812
Petticoats seen at the market of Agram, Croatia 813
A church of Agram 814
A peasant's home in Croatia 815
A barn in Croatia 815
Fishing folk on the Adriatic 816
Drying sardines, near Fiume, Croatia 817
Maraschino leaves: Zara, Dalmatia, where the famous Maraschino cordial is made 818
On the market: Agram, Croatia 818
In the Austro-Hungarian province of Dalmatia 819
Perhaps the smallest cap on earth. Often a mere disc of red cloth the size of a dollar: in Dalmatia 820
The melon market in southern Dalmatia 821
Scene in the macaroni factory 822
A church parade for rain in a drought: Zara, Dalmatia 822
The hazel gatherers of Rovigno. These nuts are world-renowned 823
A shop at Spalato. Inside Diocletian's palace of 305 A. D. 823
A gipsy's hut and family 824
Inside a gipsy hut 825
Gipsy men 825
Treading the wash: Croatia 826
Slovak peasants in Croatia 826
Washing in the Dobra: Croatia 827
Peasant Boys: Croatia 828
On the market: Pola, Croatia 829
At Ogulin, Croatia 830
At work in the salt beds: Capodistria 831
Salting it down between the lagoons: Capodistria, Austria 831
Good types in Croatia 832
Emigrants at Fiume ready to leave for the United States 832
Bird's-eye view of southern part of Priene, showing the winding meander in the plain 835
Turkish town of Sokia, near Smyrna 836
Camel drivers unloading cargo at a station, near Smyrna, Asia Minor 837
Mitylene: The castle as viewed from the southern harbor 838
Mitylene: Castle Mole at the entrance of the harbor 839
Mitylene: Public road through an olive orchard 840
Scene on the quay of Mitylene 841
Sack menders at work: Smyrna 842
Washing for gold: Asia Minor 843
Ephesus: Excavated street leading to the library 844
Ephesus: The double church, western section 845
Street in Magnesia: Roman barracks on either side 848
The great theatre at Miletus 850
One end of the theatre at Miletus 851
Colophon: Well-preserved tomb in the Necropolis. Type of Zaptieh or Turkish mounted police 852
Type of Greek shepherd near Colophon 853

Page
Herd of goats on a farm near ancient Colophon 854
The way licorice root is brought to a station in the Meander valley 855
Greek school children and their teachers in Aidin, interior of Asia Minor 856
Young loggerhead turtles just after hatching: Loggerhead Key, Florida 860
The most northerly grove of palmettoes, Smith Island, Cape Fear, North Carolina 861
Live oak at Southport, North Carolina 862
The sea destroying the forest: Coast of Florida 863
The old Spanish fort, Matanzas Inlet, Florida 864
Sand dune overwhelming a forest 865
Sand shapes sculptured by the wind: Fernandina, Florida 866
Ledges of Coquina rock at Anastasia Island, Florida 867
A "norther" on the Florida coast 870
An old seagrape on Elliott's Key, Florida 871
A typical church of the thatched roof type at Syo Got, Korea 872
Nurse girls in Korea 872
All plowing is done with bulls in Korea 873
Hay carts in Korea 873
Woman weaving: Korea 874
Delivery wagon in Korea 874
Woman unwinding thread to put in loom: Korea 875
Woman starching thread and preparing it for loom: Korea 876
A candy boy: Korea 877
Two christian grandfathers, aged 78 and 80: Korea 877
Bundles of whalebone as received at the factory 878
Scene at the whaling station, Sechar, on the west coast of Vancouver Island 879
A "Yucca" seen on the slopes of Mount Wilson, California 880
The late Daniel Coit Gilman 881
A Bulgarian bride and groom 882
Malays in native costume: Singapore 884
A Tamil bride and groom: Singapore 885
Chinese coolie women who work in the tin mines of the Malay peninsula 886
Chinese pepper plantation: Malay peninsula 887

WASHINGTON, D. C.
PRESS OF JUDD & DETWEILER, INC.
1908